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Commissioner for patent
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US patent application No: 10/528,004 ✓ Art unit: 2834

Dear Mr Erik D Preston

Thanks for send me the Office Action Summary of 02 Nov 2005.

Replay to your Office Action Summary.

1. I deleted Claim 8 from the Claims.
2. I also deleted the Claim 9 & 10 from the Claims.
3. I do not agree the Claim Rejections. There are differences between my application and Pedersen (WO 01/33700), Lin (US 560621).

In my patent description and Claims, I clearly wrote (also see Fig 1):

1. (description page 1, paragraph 3) "adapted such that the tumbling chamber is of sufficient dimensions to allow the first magnet to freely tumble".
2. (description page 1, paragraph 5) "Fig 1 shows a cress-sectional view of an electricity generating system. The first magnet 9 is set free to tumble within a tumbling chamber 10".
3. (Claim 1, "... such that the tumble chamber (10) is of sufficient dimension to allow the first magnet (9) to freely tumble,"

The "set free" and "freely tumble" means the first magnet 9 is not fixed or suspended to any place within the tumbling chamber 10.

In Pedersen (WO 01/33700), (description page 3, line 23) it says "The first magnet(s) (item number 2 in drawings, in my document is the first magnet 9) may be freely suspended in the coil so that each magnet can rotate around an axis of rotation being substantially perpendicular to the longitudinal axis of the coil". In Claim 2, it says "An electricity generating device according to Claim 1, where the first magnet(s) are fixed mounted in relation to the coil".

In Fig 10 (see attached copy) there is an axis mark. The mark appeared in other figs, (7) is the mark numbered on other figs, but on description, there is no any text to explain what the number (7) is, (this is against the patent document rules). But compare with other figs, the (7) mark is an axis where the first magnet(s) rotating around.

In Lin (US 5606210) document, (drawing page 4, Fig 3) the rotating magnets (32) is fixed by a track (311) and a ball (331), the magnet (32) can be freely (?) moved inside of coil chamber (31) along the track (311).

Now we can see the key difference:

In my application, the first magnet 9 is set free to tumble within a tumbling chamber 10. The first magnet (9) is not fixed or suspended to any place in the tumbling chamber 10. The first magnet (9) freely (axis-less) tumbles (or flip, rotate) without any restriction within the coil chamber 10. In Pedersen and Lin's applications, they also use the words "freely rotating", but after studying their description, drawings and Claims, we will know the "freely rotating" is rotating around an axis or along a track, it is not totally free! In short, their "free" has a different meanings from the "free" in my application! This is a key difference.

Moreover, in my application "the first magnet 9 is set free (tumbling free) in the tumbling chamber 10" will have some direct results:

1. High flexibility. (my description page 1, paragraph 5, fig 1): "there may be some arbitrary, relative motion between the first magnet 9 and the second magnet 2, The magnets depicted with dotted lines represent alternative, relative motions of the second magnet 2 with respect to the first magnet 9". That means there is no restriction on directions, speed and magnetic poles (S or N end of magnet) as the first magnet 9 and second magnet 2 pass close to each other.
2. Because the first magnet 9 is set free in the tumbling chamber, it will be easier and cheaper to be made. Because it does not need fixer or axis for the magnet, just place the magnet in the tumbling chamber will be enough.

I hope I explained everything clearly here. If not, please contact me, and give me another chance to amend my application.

Yours sincerely



Mr Qin Gang